COMPLETE SAMPLE DELIVERY GROUP FILE (CSF) EVIDENCE AUDIT CHECKLIST

U.S. Environmental Protection Agency - Region 8 Environmental Services Division, Multi-Media Branch Analytical Operations Section

	11 1-12
Audit Number: 08-21-08 Site Name: Richards	son Hat lailer
Date CSF Received: 0/63/08 Site Manager: Kath	ryn Hernandy
Received By: Gan Bland RAS Number: 3709	3 (
Date of Audit: 02/4/08 ULSA Number:	
Audited By: Carl Bland SDG Number: MH22	150
Resubmitted CSF? Yes No Number of Samples:_	16/4/W
Lab Name: CHEMTECH CONSULTING CLP Lab Code: CHI	
Lab Location: Mountain Si de MA.	
AUDIT CHECKLIST	
AUDI ONCONLO	
CHAIN OF CUSTODY	
	2 -
1. Custody Seal Present?	Yes No
2. Condition of Seal? Intact Signed Broken	_ Unsigned
3. Chain of Custody Record(s) Present?	Yes No
4. Chain of Custody Record(s) Signed?	Yes No
5. Chain of Custody Record(s) Dated?	Yes No
6. Traffic Report(s) or Packing List(s) Present?	YesNo
7. Traffic Report(s) or Packing List(s) Signed?	YesNo
8. Airbill Present? Transfer	Yes No
9. Airbill Number(s) 8627828/56//	
10. Airbill Signed?	Yes No
11. Airbill Dated?	
	Yes No
12. Sample Tags Present?	Yes No
12. Sample Tags Present? 13. Should Sample Tags be Present?	

ORM DC-2

5. Numbering Scheme on Form DC-2 Correct?	Yes No_
	Yes\ No
Enclosed Documents Listed?	Yes No
7. Listed Documents Enclosed? See Connects	Yes No__
DRM DC-1	
3. Form DC-1 Present?	Yes No
Form DC-1 Complete?	Yes No
). Form DC-1 Correct?	Yes_\No
CUMENT CONTROL	
. Laboratory Documents Complete?	Yes No_
. Laboratory Documents Legible?	YesNo
. Original Documents Included in CSF?	Yes No
TA INSPECTION	•
. Form I's present (for each analytical fraction	
as defined by the Traffic Report/Chain of Custody	
Record)?	Yes No
. Forms 2 through 8 (VOC & SVOC), Forms 2 through 10	•
(Pesticides), Forms 2 through 14 (Metals & Cyanide)	
_present?	Yes No
. Raw data present (for each analytical fraction as	
And and the state of the property formal and the state of	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
defined by the Traffic Report/Chain of Custody	
Record)?	Yes No

DIT NUMBER 08-21-08
AMENTS AND NOTES:
DC-2 lists pangle tags as present, house
745 806 15 gor MS-1
CamBeant 02/4/08
Date EPA OFFICIAL SEALS PAGE
ease attach all custody seals below:
CHETTICECH CUSTODY SEAL 284 Sheffield St. • Mountainside, NJ 07092 [908] 789-8909 • Fax (908) 789-8922 Project:

AUDIT NUMBER: 08-2/-08
EPA CLP ELECTRONIC DISKETTE(S)
CASE #: 37093 SEG #: MH2450
SITE NAME: Richardson Hat Tailings
EM: Kathum Demarden
DATE: 02/4/08
a a a a a a

Audst - 08-21-08

PAS - 37093

MH2450

Site - Richardson HatTailing

Rem Kothum Hernanders

Dide - 02/24/08

LAB - CHEM

USEPA - CLP

COVER PAGE

Lab Name CHEMTEC	H CONSULTING GROUP	Contract: EPW060	947		
Lab Code: CHEM	Case No.: <u>37093</u>	NRAS No.:	SD	G No.: MH24	S0
SOW No.: ILM05.4		•			
	EPA Sample No.		Lab Sa	mple ID	
	MH24R9	·	Y509	0-02	
	MH24S0		Y509		_
	MH24S1	•	Y509		
	MH24S1D		Y509 Y509		
	MH24S1S MH24S2		Y509		_
	MH24S3		Y509		
	MH24S4		Y509		_
	MH24S5		Y509		<u> </u>
	MH24S6		Y509		<u> </u>
	MH24S9	•	Y509		_
	MH24T0 MH24T1		Y509 Y509		_
	MH24T2		Y509		_
	MH24T3		Y.509		
v	MH24T4	•	Y509		
	MH24W5		Y509		
•	MH24W6		Y509	0-18	_
					
			<u></u>		
					_
					
	•			ICP-AES	ICP-MS
Were ICP-AES and I	CP-MS interelement correction	ons applied?	(Yes/No)		YES
	CP-MS background correction	ns applied?	(Yes/No)	.	YES
If yes, were raw data application of back	ta generated before ground corrections?		(Yes/No)		<u>NO</u>
Comments:					,
		-			
completeness, for other and in the computer-re	package is in compliance with r than the conditions detailed adable data submitted on disk) has been authorized by the I	above. Release of the ette (or via an altern	ne data contained ate means of ele	l in this harded ctronic transm	opy data package ission, if approve
Signature: 2h. R	show For PH	Name: PARVEEN	HASAN		
Date: 1/2/08	2	Title: EPA PROJE	CT MANAGER		
•					

CHEMTECH

284 Sheffield Street Mountainside, NJ 07092

SDG NARRATIVE

USEPA
SDG #MH24S0
CASE # 37093
CONTRACT # EPW06047
LAB NAME: CHEMTECH CONSULTING GROUP
LAB CODE; CHEM
CHEMTECH PROJECT #Y5090

A. Number of Samples and Date of Receipt

1 Water Samples was delivered to the laboratory intact on 10/03/07.

B. Parameters

Test requested for Metals CLP MS-CLP4. C. Cooler Temp

Indicator Bottle: <u>Presence/Absence</u> Cooler: 4°C

- D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):
- E. Corrective Action taken for above:

F. Analytical Techniques:

All analyses were based on CLP Methodology by method ILM05.4

G. Calculation:

For ICP-MS:

Result in Ug/L on Forms = Results in ppb(ICP-MS Raw Data) X Dilution Factor (if any)

CHEMTECH

284 Sheffield Street Mountainside, NJ 07092

H. QA/QC

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

I certify that the data package is in compliance with the terms and conditions of the contract both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Director or his designee, as verified by the following signature.

Signature Zh. Rohani Far PH	Name: Parveen Hasan
Date 112108	Title: Project Manager

SAMPLE LOG-IN SHEET

Received By (Pri	nt Name) zubair	74	1			Log-in Date
			1			-10/30/200 7
Received By (Sig	nature)	uban (Ce	·		12/20/0
Case Number	37093	Sample Deli	very Grou	p No. MH24S0	NRAS Nu	mber '
Remarks:			T	Corres	ponding	r .
 Custody Seal(s) Custody Seal Nos. Traffic 	Present/Absent* (ntact/Broken Present/Absent*	EPA Sample #	Aqueous Sample pH	Sample Tag #	Assigned Lab #	Remarks: Condition of Sample shipment, etc.
Reports/Chain Of Custody Reports or		MH24S0	2	TAG3383	Y5090-01	1N79C7
Packing Lists		MH24R9	١ ١	TAG3383	Y5090-02	
4. Airbill	Airbill Sticker	MH24S1]	TAG3383	Y5090-03	
C Almbill Pl-	Present/Absent* 862782.8/	MH24S1D] }	TAG3383	Y5090-04	
5. Airbill No.	-	MH24S1S]	TAG3383	Y5090-05	
6. Sample Tags	Present/Absent*	MH24S2		TAG3383	Y5090-06	
Sample Tag #	Listed/Not Listed On TR/Chain-of-Custo	MH24S3	1	TAG3383	Y5090-07	
7 Samnle Condition	Intact Broken*/Leakin	14410404	1 1	TAG3383	Y5090-08	
8. Cooler	Present/Absent*	MH24S5	1	TAG3383	Y5090-09	
Temperature	Tresens Absent	MH24S6		TAG3383	Y5090-10	
Indicator Bottle	, 0	MH24S9	1 1	TAG3383	Y5090-11	
9. Cooler Temperature	740	MH24T0	1	TAG3383	Y5090-12	
10. Does information	Yes/No*	MH24T1	1	TAG3383	Y5090-13	
on custody records, traffic		MH24T2	1 ,	TAG3383	Y5090-14	
reports, and	•	MH24T3	1 1	TAG3383	Y5090-15	
sample tags aggree?	1	, MH24T4	1 1	TAG3383	Y5090-16	
11. Date Received a	t 12/201	MH24W5	1 1	TAG3383	Y5090-17	
Lab	1,1	MH24W6	1	TAG3383	Y5090-18	
12. Time Received		/O				
Sam	ple Transfer					
Fraction	Fraetion /			1	V)	
Area #	Area #1					·
Ву	ВУ					[
Ón	On					
Contact SMO ar	nd attach record of re	solution _			<u> </u>	
Reviewed By Zh	Rohau	L	.ogbook N			
Date 12/27	107	L	ogbook Pa	age No.	V	

FULL INORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET

LABORATORY NAME <u>CHEMTECH CONSULTI</u> CITY/STATE <u>MOUNTAINSIDE</u> , NJ	NG GROUP, IN	C,		
CASE NO. 37093	SDG NO	MH24S0		
SDG NOs TO FOLLOW		WIII2450		
NRAS NO.				
		•		
SOW NOILM05.4	· · · · · · · · · · · · · · · · · · ·		<u> </u>	·
All documents delivered in the Complete SDG File must be o	riginal documents y	where possible (Refer	ence _ Evhihit B S	Section 2.6)
An documents derivered in the complete 500 inc must be c		GE NOs	CHE	
	FROM	<u>TO</u>	LAB	REGION
1. Cover Page	_1_	_1_	<u> </u>	\checkmark
2. SDG Narrative		_3		V/
3. Sample Log-In Sheet (DC-1)	4	4		
4. Inventory Sheet (DC-2)		<u>_6</u>		\sim
5. Traffic Report/Chain of Custody Record(s)		_9		
			-	
Inorganic Analysis				٠,
6. Data Sheet (Form IA-IN)	10_	_25_		-1/
7. Initial & Continuing Calibration				· /
Verification (Form IIA-IN)	26	_32_	J	· • •
8. CRQL Standard				1
(Form IIB-IN)	_33_	<u>39</u>	J	V
9. Blanks (Form III-IN)	<u> </u>	44	· -	1
10. ICP-AES Interference Check Sample	_ 			
(Form IVA-IN)	<u>N/A</u>	N/A		
11. ICP-MS Interference Check Sample	IVA	11/12		_
(Form IVB-IN)	45	46	J	1/
12. Matrix Spike Sample Recovery				<u> </u>
(Form VA-IN)	47	47	1	\/
13. Post-Digestion Spike Sample Recovery				
(Form VB-IN)	48	48_	√.	V
14. Duplicates (Form VI-IN)	49	49	- 1	$\frac{1}{\sqrt{1}}$
15. Laboratory Control Sample		<u> 4</u> 9		-
(Form VII-IN)	_50	50_	٦	3/
16. ICP-AES and ICP-MS Serial Dilutions		<u> </u>		<u> </u>
(Form VIII-IN)	_51	_51_	4	1/
17. Method Detection Limits (Annually)	_31	· <u>21</u>		<u>~</u>
(Form IX-IN)	52	_53	ત્રી	1/
18. ICP-AES Interelement Correction Factors	_34	_33_		
(Quarterly) (Form XA-IN)	<u>N/A</u>	<u>N/A</u>	٠.	
19. ICP-AES Interelement Correction Factors	IVA	MA		
(Quarterly) (Form XB-IN)	<u>N/A</u>	<u>N/A</u>		
20. ICP-AES and ICP-MS Linear Ranges	13/A	1377		— /
	_54	_ 54	٠.	V.
(Quarterly) (Form XI-IN) 21. Preparation Log (Form XII-IN)	<u>54</u> _55	54	<u> </u>	1
21. Fieparation Log (Form AII-IN)	<u> </u>	_ 33_		<u>.v</u>

FORM DC-2-1

ILM05.4

	PAGE	NOs	CHE	<u>CK</u>
	FROM	TO	LAB	REGION
22, Analysis Run Log (Form XIII-IN)	_56	_61_	1	
• • • • • • • • • • • • • • • • • • •	62	63	- 1 -	
23. ICP-MS Tune (Form XIV-IN)			<u></u>	<u>~</u>
24. ICP-MS Internal Standards Relative			d	
Intensity Summary (Form XV-IN)	<u>64</u>	<u>81</u>	<u> </u>	
25. ICP-AES Raw Data	<u>N/A</u>	<u>N/A</u>		
26. GFAA Raw Data (If Applicable)	<u>N/A</u>	<u>N/A</u>	. ——	$\sqrt{2}$
27. ICP-MS Raw Data	<u>82</u>	<u>419</u>	<u> </u>	\rightarrow
28. Mercury Raw Data	<u>N/A</u>	N/A		
29. Cyanide Raw Data			:	$\overline{\overline{\overline{}}}$
30. Preparation Logs Raw Data	<u>446</u>	<u>447</u>		\searrow
31. Percent Solids Determination Log				V .
32. USEPA Shipping/Receiving Documents				. /
Airbill (No. of Shipments _1)	<u>448</u>	<u>448</u>	<u> </u>	\sum
Sample Tags (In a Plastic Bag w/ Page #)	455	455		
Sample Log-In Sheet (Lab)	449	452	- √	1
33. Misc. Shipping/Receiving Records				V
(list all individual records)				
Telephone Logs	<u>N/A</u>	<u>N/A</u>		-
PE Instruction Page		<u> </u>		
Modified Analysis Page	N/A	N/A		
34. Internal Lab Sample Transfer Records &				
Tracking Sheets (describe or list)				
Internal Lab COC	<u>N/A</u>	N/A		
Lab Chronicle	453	454	<u> </u>	1
35. Internal Original Sample Prep &				
Analysis Records (describe or list)				
Prep Records				
Analysis Records				
Description		<u></u>		
36. Other Records (describe or list)			· 	
Telephone Communications Log			•	•
STD Certification/ Traceability & Log Page	420	445	<u>√</u>	1
SID CELUICIMON Tructuoimy Wiley Tage			•	\overline{V}
37. Comments:				
				· · · · · · · · · · · · · · · · · · ·
				<u>.</u>
Commission & Davis				•
Completed By:	Wasan Dunka	at Managan		100
(CLP Lab) the Kohoun for ph Pa (P)	iveen Hasan, Proje int/Name & Title)	ct Manager	<u>1 (o</u> l	108
(Diguature)	And Laure of Line)	\circ	(Dai	·,
Audited By:	10 10	Lon 1	_ 1	1. C
(USEPA) CULL SUM	-UQ(X)) l Ust	Ω/≉	4/01
	rint Name & Title)		(Dat	e)

FORM DC-2-2

ILM05.4

Sample Delivery Group (SDG) Cover Sheet

SDG Number: MH24S0

•		ICP-AES An	alysis	ICP-M	S Analysis		
Laboratory Name:	CHEMTECH			aboratory ode:	<u>CHEM</u>		
Contract No.	EPW06047		C	ase No.	<u>37093</u>		
Analysis Price			S	SDG Turnaround 14 day			
Modified Analy	ysis (if ap	plicable):			**	. ,	
Modification F	Reference	No:	VA				
	USEPA	Sample Nur	mbers in SD	G (Listed	in Numerical	Order)	
MH24S0		MH24R9		MH24S1		MH24S1D	
MH24S1S		MH24S2	·	MH24S3		MH24S4	
MH24S5	MH24S5		er over the subsection of the	MH24S9		MH24T0	
MH24T1		MH24T2		MH24T3		MH24T4	
MH24W5		MH24W6					
First Sample in	SDG				Last Sampl	e in SDG	
MH24S0					MH24W6		
		·			,		
First Sample R	eceipt Da	te			Last Sampl	e Receipt Date	
12/20/2007 3:	:10:00 PM	1			12/20/200	7 3:10:00 PM	
Note: There a Attach this for this for	TR/COC R		is form in al	phanume		order listed above on	

EPA		t Laboratory Profic Report & Cha		Record	1/4	Case No: 37093 DAS No: SDG No:
Date Shipped:		Chain of Custody R	Record	Sampler Signature:	Hy	For Lab Use Only
Carrier Name:	FedEx	Relinquished By	(Date / Time)	Received By	(Date / Time)	Lab Contract No:
Airbill:	Object Constitution	11-47	12/19/07/14:15	CMEMAL	MEHTA	Unit Price:
Shipped to:	ChemTech Consulting Group (CHEMED) 284 Sheffield Street	2			12/2da	
	Mountainside NJ 07092 (908) 789-8900	3			15110	Lab Contract No:
·	(900) 708-0300	4				Unit Price:
INORGANIC	MATRIX/ CONC/	ANALYSIS/	TAG No./	STATION	SAMPLE COLL	ECT ORGANIC

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE! Bottles	STATION LOCATION	SAMPLE COLLI DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt
MH24R9	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338303 (1)	SW-2	S: 12/17/2007	12:00		
MH24S0	Surface Water/ Chris Hayes	M/G	TM (14)	TAG338304 (1)	SW-2	S: 12/17/2007	12:00		
MH24S1	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338305 (1)	sw-3	S: 12/17/2007	12:00		2.50% (2.50%)
MH24S2	Surface Water/ Chris Hayes	M/G	<u>TM</u> (14)	TAG338306 (1)	SW-3	S: 12/17/2007	12:00	Cop	uments are included in CSF MH21
_MH24S3	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338307 (1)	SW-4	S: 12/17/2007	12:00	Original Doo	Signature
►MH24S4	Surface Water/ Chris Hayes	M/G	TM (14)	TAG338308 (1)	SW-4	S: 12/17/2007	12:00		12/20/8) Date
MH24S5	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338309 (1)	SW-5	S: 12/17/2007	12:00		en e
MH24S6	Surface Water/ Chris Hayes	M/G	TM (14)	TAG338310 (1)	SW-5	S: 12/17/2007	12:00		
MH24S9	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338313 (1)	SW-7	S: 12/17/2007	12:00		•
√MH24T0	Surface Water/ Chris Hayes	M/G	TM (14)	TAG338314 (1)	SW-7	S: 12/17/2007	12:00		

Shipment for Case Complete ?Y	Sample(s) to be used for laboratory QC: MH24S1, MH24S2	Additional Sampler Signature(s):	Cooler Temperature Upon Receipt:	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab =	G	Custody Seal Intact?
DM = CLP TAL Dissolve	d Metals, TM = CLP TAL Total Metals			

TR Number:

LABORATORY CO

©EPA		ct Laboratory Pr fic Report & Cha	_	Record	1,	Case No: DAS No: SDG No:	37093 /
Date Shipped:		Chain of Custody I	Record	Sampter Signature:	19	For Lab Use Or	ily
Carrier Name:	FedEx	Relinquished By	(Date / Time)	Received By	(Date / Time)	Lab Contract No:	
Airbill: Shipped to:	ChemTech Consulting	10- 119	12/19/07/14:15	SMEMAL		Unit Price:	
	Group (CHEMED) 284 Sheffield Street	2	·		12/20/4	Transfer To:	
·	Mountainside NJ 07092 (908) 789-8900	3	·		15:110	Lab Contract No:	
		4				Unit Price:	

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLL DATE/TIME		ORGANIC SAMPLE No.	FOR LAB USE ONLY Sample Condition On Receipt	-
MH24T1	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338315 (1)	SW-8	S: 12/17/2007	12:00			
MH24T2	Surface Water/ Chris Hayes	MG	TM (14)	TAG338316 (1)	SW-8	S: 12/17/2007	12:00			
∖ MH24T3	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338317 (1)	SW-9	S: 12/17/2007	12:00			12400
✓ MH24T4	Surface Water/ Chris Hayes	M/G	TM (14)	TAG338318 (1)	SW-9	S: 12/17/2007	12:00	Copy Original Docu	iments are included in CSF Mf.	724K
MH24W5	Surface Water/ Chris Hayes	M/G	DM (14)	TAG338329 (1)	SW-15	S: 12/17/2007	12:00	,	Signature 12/20/0	_
MH24W6	Surface Water/	M/G	TM (14)	TAG338330 (1)	SW-15	S: 12/17/2007	12:00		Date	

, ·	Sample(s) to be used for laboratory QC:		Cooler Temperature	Chain of Custody Seal Number:		
Complete?Y	MH24S1, MH24S2		Upon Receipt: 4°C	NA		
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G		Custody Seal intact? Shipment Iced?		
DM = CLP TAL Dissolve	d Metals, TM = CLP TAL Total Metals		`			

TR Number:

LABORATORY CO